

10<sup>th</sup> April 2019

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Independent Planning Commission NSW (IPCN)

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Dear IPCN Panel Members,

### **D532-18 – Bylong Coal Project Determination**

There are rapid developments occurring relating to the viability of the global thermal coal market since my letter to you, dated March 4. I wish to draw the IPCN Panel Members' attentions to the following additional information:

1. Two weeks ago, the Global Energy Monitor (formerly known as CoalSwarm), the Sierra Club and Greenpeace collaboratively published their *Boom and Bust 2019: Tracking the Global Coal Plant Pipeline* report.<sup>1</sup> For three consecutive years to 2018, most leading indicators of coal power capacity growth declined, including construction starts, pre-construction activity, and plant completions. Key developments reported for 2018 include:
  - A 39% drop in new construction starts from 2017, and an 84% drop since 2015;
  - A 20% drop in newly commissioned coal power capacity from 2017, and a 53% drop from 2015;
  - A 24% drop in pre-construction activity from 2017, and a 69% drop from 2015;
  - Coal plant retirements continue at a record pace, making 2018 the third highest year for retirements globally and the second highest for the US;
  - A 12% increase in coal power capacity under construction since 2017, as China has resumed development of previously shelved plants. However, total capacity under construction has declined 30% since 2015;
  - An unprecedented slowdown in coal plant permits in both China and India. China permitted less than 5 GW of coal power for construction in 2018, compared with 184 GW in 2015. India permitted less than 3 GW in 2018, compared with 39 GW in 2010; and
  - The emissions from currently operating coal plants alone utilised at an average rate and lifetime are too high to hold global warming to 1.5°C or 2°C, according to estimates for coal use by the Intergovernmental Panel on Climate Change.
2. Japan's environment minister has announced he will "in principle" oppose any new plans to build or expand coal-fired power stations.<sup>2</sup> A faster-than-anticipated transition by the Japanese energy sector, which currently buys

<sup>1</sup> <https://endcoal.org/global-coal-plant-tracker/reports/boom-and-bust-2019/>

<sup>2</sup> *The Guardian*, **Japan to oppose new or expanded coal-fired power plants in blow to Australian exports**, by Ben Smee, 31 Mar 2019, <https://www.theguardian.com/environment/2019/mar/31/japans-environment-minister-to-oppose-any-new-or-expanded-coal-fired-power-plants>



around 39% of Australian-mined thermal coal, would affect future volumes and the viability of some new mines.

3. Some indicators suggest falling conventional crude oil production is beginning to impede diesel supply.<sup>3</sup> Global production of conventional crude oil reached its peak in 2008, at 69.5 million barrels per day (Mb/d) and has since fallen by approximately 2.5 Mb/d, with an additional 3 Mb/d fall expected between 2017 and 2040.<sup>4</sup> An increasing proportion of global crude oil production is originating from “unconventional oils”, light oils that are generally bad substitutes not suitable to produce diesel and marine bunker fuels. The relatively light density of US shale oil is unsuitable for making several of the heavier oil products such as diesel and jet fuel unless it is blended with heavier imported crude.<sup>5</sup> The US refining system is close to being “maxed-out” on the amount of shale oil it can process, ill-suited for producing higher octane gasoline, jet fuel and diesel.<sup>6</sup> **As global conventional crude oil production falls further, global petroleum-based diesel and marine bunker fuel production will likely decline too.**
4. A new International Maritime Organization (IMO) rule comes into effect on January 1, 2020, requiring all oceangoing ships to use low-sulphur diesel fuel.<sup>7</sup> Until now, ships have burned “the dregs” of crude oil, relatively high in sulphur and other pollutants, because it was the least expensive fuel available. Some energy analysts suggest **the world’s petroleum industry lacks the capacity needed to supply additional low-sulphur fuels to the shipping industry while simultaneously meeting the requirements of existing customers such as farmers, truckers, rail locomotive and heavy equipment operators.**<sup>8</sup> In 2020, it’s likely crude oil prices will rise, sending all petroleum fuel product prices higher. Diesel prices will lead, but gasoline and jet fuel will follow.<sup>9</sup>
5. Ghawar in Saudi Arabia, the world’s largest conventional oil field, produces a lot less oil than almost anyone previously believed. Saudi Aramco recently published its first ever profit figures since its nationalisation nearly 40 years ago, lifting the veil of secrecy around its mega oil fields.<sup>10</sup> **In total, the Saudi kingdom has 226 billion barrels of reserves, enough for another 52 years of production at the maximum capacity of 12 Mb/d.**<sup>11</sup> Previously, estimates for Saudi Arabia’s Reserves-to-Production at the end of 2017 (at a continuous

<sup>3</sup> *Cassandra’s Legacy*, Peak Diesel or no Peak Diesel? The Debate is Ongoing, 16 Dec 2018, <https://cassandrallegacy.blogspot.com/2018/12/peak-diesel-or-no-peak-diesel-debate.html>

<sup>4</sup> IEA, *World Energy Outlook 2018*, p45, <https://www.iea.org/weo2018/>

<sup>5</sup> *Peak Oil Review*: 29<sup>th</sup> October 2018, edited by Tom Whipple and Steve Andrews, <http://peak-oil.org/peak-oil-review-29-oct-2018/>

<sup>6</sup> *DeSmogBlog*, Low Octane: The Surprising Reason Shale Oil Makes a Poor Fuel for High-Tech Cars and Trucks, by Sharon Kelly, 24 Apr 2018, <https://www.desmogblog.com/2018/04/24/octane-surprising-reason-shale-oil-makes-poor-fuel-high-tech-cars-and-trucks>

<sup>7</sup> IMO, *Frequently Asked Questions: The 2020 global sulphur limit*, <http://www.imo.org/en/MediaCentre/HotTopics/GHG/Documents/2020%20sulphur%20limit%20FAQ%202019.pdf>

<sup>8</sup> *Reuters*, *Maritime rule change stirs fears of diesel shortage: Kemp*, by John Kemp, 26 Oct 2018, <https://www.reuters.com/article/us-oil-prices-kemp/maritime-rule-change-stirs-fears-of-diesel-shortage-kemp-idUSKCN1MZ2EM?fbclid=IwAR2OFDr6EoYyxuLEI2qIk08aczFS-GmlE-6bMP-O7Xy5ztFhnfUQheUW3Ds>

<sup>9</sup> *\$200 Crude, the Economic Crisis of 2020, and Policies to Prevent Catastrophe*, by Philip K. Verleger, Jr., Jul 2018, <https://www.pkverlegerllc.com/assets/documents/180704200CrudePaper.pdf>

<sup>10</sup> *SMH*, *Saudi Aramco was the world’s most profitable company in 2018*, from Bloomberg, 1 Apr 2019, <https://www.smh.com.au/business/companies/saudi-aramco-was-the-world-s-most-profitable-company-in-2018-20190401-p519nx.html>

<sup>11</sup> *SMH*, *Saudi mystery: World’s largest oil field is fading faster than anyone knew*, by Javier Blas / AP, 3 Apr 2019, <https://www.smh.com.au/business/markets/saudi-mystery-world-s-largest-oil-field-is-fading-faster-than-anyone-knew-20190403-p51a6m.html>

production rate of 11.951 Mb/d) was 61.0 years.<sup>12</sup> **It seems the latest data indicates the world now has significantly less (conventional) petroleum oil reserves remaining than conventional wisdom previously estimated.**

Any new coal mines (like Adani's Carmichael coal mine and KEPCO's Bylong Coal Project) will add more competition to a likely shrinking market in the 2020s. Any new coal mines are likely to take jobs away from existing operating mines in the Queensland's Bowen and Surat basins, and from NSW's coalfields.

Likely increasing diesel fuel prices will add to production and transport costs for thermal coal (including at the proposed Bylong Coal Project), reducing the competitiveness of thermal coal as an energy source further.

Similar information relevant to the Bylong Coal Project Determination may be found in my Submission (#9) and Supplementary Submissions A (#9.1) and B (#9.2) to the Australian Parliament Senate Select Committee into Fair Dinkum Power.<sup>13</sup>

I do hope you, as the IPCN Panel Members deciding the fate of the Bylong Coal Project, won't ignore the issues I have raised in my IPCN presentation on 07 November 2018, in my letter to the IPCN on March 4, and additional information in this letter.

Please choose wisely.

Yours Sincerely,

[Redacted signature]

Geoff Miell

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Mobile:

[Redacted mobile number]

<sup>12</sup> *BP Statistical Review of World Energy 2018*, pp12 & 14, <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2018-full-report.pdf>

<sup>13</sup> [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Fair\\_Dinkum\\_Power/FairDinkumPower/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Fair_Dinkum_Power/FairDinkumPower/Submissions)